selecting an error correction algorithm from a plurality of error correction

algorithms taking into account said error rate level[.]; and

determining the dynamic quality of said communication channel.

2. The method of claim 1, wherein said plurality of bearer data packets comprises

traffic data.

3. The method of claim 2, wherein said error correction algorithm has an overhead

level, and wherein the amount of said traffic data is inversely varied with said

overhead.

4. The method of claim 1, and wherein said error rate level determination comprises

correcting said plurality of bearer data packets and detecting a number of

defective bearer data packets to obtain a current block error rate (BLER) level,

and wherein said error correction algorithm determination is based on said current

BLER level.

5. The method of claim 4, wherein said error correction algorithm selection

comprises setting a minimum BLER threshold level and a maximum BLER

threshold level to create an acceptable BLER range, selecting a current error

correction algorithm if said acceptable BLER range includes said current BLER

level and selecting an error correction algorithm different from said current error

correction algorithm if said acceptable BLER range does not include said current BLER level.

6. The method of claim 5, wherein said plurality of error correction algorithms comprise differing overhead levels, and said error correction algorithm determination further comprises selecting an error correction algorithm with a next lower overhead than that of said current error correction algorithm if said current BLER level is below said minimum BLER threshold level and selecting an error correction algorithm with a next higher overhead than that of said current error correction algorithm if said current BLER level is above said maximum BLER threshold level.

7. The method of claim 1, wherein said error rate level determination comprises detecting a number of bit errors in said plurality of bearer data packets to obtain a bit error rate (BER) level, and wherein said error rate level determination is based on said current BER level.

8. (Once amended) The method of claim 7, wherein said error correction algorithm selection comprises setting at least one [BLER] BER threshold level to create a plurality of BER ranges corresponding to the plurality of error correction algorithms, and selecting an error correction algorithm that corresponds to the BER range that includes the current BER level.

9. The method of claim 1, wherein each bearer data packet of said plurality of bearer data packets is respectively received during a time slot of said each time frame of said multi-frame, and wherein said error correction algorithm selection comprises selecting said error correction algorithm during the last time frame of said multi-frame.

10. (Once amended) A method of selecting an error correction algorithm in a communications system, the method comprising:

dividing each time frame of a multi-frame into a plurality of time slots;

determining an error rate level of a communication channel based on a plurality of bearer data packets when received during said multi-frame;

selecting an error correction algorithm from a plurality of error correction algorithms taking into account said error rate level;

[The method of claim 1, further comprising:]

determing the dynamic quality of said communication channel; and

adjusting the number of time frames in said plurality of time frames a multi-frame based on said dynamic quality.

11. (Once amended) The method of claim 1, wherein said plurality of error correction algorithms includes [no error correction] an algorithm which, when used, does not correct any errors.

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12.   (Once amended) The method of claim 1, wherein said plurality of error correction

algorithms includes [no error correction algorithm] <u>an algorithm which, when</u>

<u>used, does not correct any errors</u>, a low-level error correction algorithm and a

high-level error correction algorithm.

13.   The method of claim 1, wherein said plurality of bearer data packets are

wirelessly transmitted between a central station and a remote station.

14.   (Once amended) A method of correcting transmission errors in a communications

system comprising an FEC dynamic central station and an FEC dynamic remote

station, the method comprising:

determining an error rate level of a communication channel between said FEC

        dynamic central station and said FEC dynamic remote station based on a

        plurality of received bearer data packets received during a previous

        plurality of time frames;

selecting an error correction algorithm from a plurality of error correction

        algorithms taking into account said determined error rate level;

transmitting a bearer data packet during a current time frame;

receiving said bearer data packet during said current time frame; and

correcting said bearer data packet[.] ; and

determining the dynamic quality of said communication channel.

15.   The method of claim 14,

wherein said bearer data packet transmission comprises generating error

correction data according to said selected error correction algorithm, and

transmitting said error correction data with said bearer data packet; and

wherein said bearer data packet correction comprises correcting said bearer data

packet according to said selected error correction algorithm.

16.   The method of claim 15, wherein said bearer data packet transmission further

comprises encoding a bearer data packet with said error correction data.

17.   The method of claim 15, wherein said bearer data packet transmission further

comprises appending a bearer data packet with said error correction data.

18.   The method of claim 15, wherein said error rate level determination comprises correcting said plurality of bearer data packets and detecting a number of defective bearer data packets to obtain a current block error rate (BLER) level, and wherein said error correction algorithm determination is based on said current BLER level.

19.   The method of claim 15, wherein said error rate level determination comprises detecting a number of bit errors in said plurality of bearer data packets to obtain a current bit error rate (BER) level, and wherein said error rate level determination is based on said current BER level.

20.   The method of claim 14, wherein said plurality of bearer data packets and said bearer data packet are both respectively transmitted by said FEC dynamic central station and received by said FEC dynamic remote station, and said FEC dynamic remote station performs said error rate level determination and said error correction algorithm selection.

21.   (Once amended) The method of claim 14, wherein one of said FEC dynamic remote station and FEC dynamic central station transmits a signal to [another] the

other of said FEC dynamic remote station and said FEC dynamic central station indicating said error correction algorithm selection.

22.   (Once amended) The method of claim 21, wherein said [another] other of said FEC dynamic remote station and said FEC dynamic central station transmits a signal to said one of said FEC dynamic remote station and said FEC dynamic central station approving or denying said error correction algorithm selection.

23.   (Once amended) The method of claim 21, wherein said [another] other of said FEC dynamic remote station and said FEC dynamic central station transmits a signal to said one of said FEC dynamic remote station and said FEC dynamic central station encoded in said bearer data packet.

24.   (Once amended) The method of claim 21, wherein said one of said FEC dynamic remote station and said FEC dynamic central station corrects said bearer data packet using one of said plurality of error correction algorithms.

25. A method of correcting transmission errors in a communications system comprising an FEC dynamic central station and an FEC dynamic remote station, the method comprising:

transmitting a first plurality of bearer data packets during a first multi-frame;

receiving said first plurality of bearer data packets during said first multi-frame;

determining an error rate level of a communication channel between said FEC dynamic central station and said FEC dynamic remote station based on said first plurality of bearer data packets;

selecting an error correction algorithm from a plurality of error correction algorithms taking into account said determined error rate level;

transmitting a second plurality of bearer data packets during a second multi-frame, said second plurality of bearer data packets being generated according to said selected error correction algorithm;

receiving said second plurality of bearer data packets during said second multi-frame; [and]

correcting said second plurality of bearer data packets according to said selected error correction algorithm[.] ; and

determining the dynamic quality of said communication channel.

26. The method of claim 25,

wherein said first bearer data packet transmission comprises generating error correction data according to an error correction algorithm of said plurality of error correction algorithms, generating error detection data according to an error detection algorithm, and transmitting said error correction data and said error detection data with said first plurality of bearer data packets; and

wherein said error rate determination further comprises correcting said first plurality of bearer data packets according to said error correction algorithm to create a first plurality of corrected bearer data packets, and detecting a number of defective bearer data packets by detecting any residual errors in said first plurality of corrected bearer data packets according to said error detection algorithm to create a current BLER level.

27. The method of claim 25, wherein said error rate determination further comprises detecting bit errors in said first plurality of bearer data packets to create a current bit error rate (BER) level.

28.   (Once amended) The method of claim 25,

wherein said one of said FEC dynamic central station and said FEC dynamic

remote station perform said transmission; and

wherein [another] the other of said FEC dynamic central station and said FEC

dynamic remote station perform said reception, said error rate level

determination, said error correction algorithm selection, and said

correction of said second plurality of data packets.

29.   (Once amended) The method of claim 25,

wherein said one of said FEC dynamic central station and said FEC dynamic

remote station is said FEC dynamic central station and said [another] other

of said FEC dynamic central station and said FEC dynamic remote station

is said FEC dynamic remote station; and

wherein the method further comprises transmitting first control data from said

FEC dynamic remote station to said FEC dynamic central station

indicating said error correction algorithm selection, and transmitting

second control data from said FEC dynamic central station to said FEC

dynamic remote station confirming said error correction algorithm

selection.

30. (Once amended) A recordable medium comprising:

a computer program comprising steps for:

determining an error rate level of a communication channel between a

plurality of communications terminals based on a plurality of

bearer data packets when received; [and]

selecting an error correction algorithm from a plurality of error correction

algorithms taking into account said determined error rate level[.];

and

determining the dynamic quality of said communication channel.

31. The recordable medium of claim 30, wherein said computer program further

comprises a step for directing one of said communications terminals and said

another of said communications terminals to correct a received bearer data packet

using said selected error correction algorithm.

32. The recordable medium of claim 30, wherein said error rate level determination

step comprises determining said error rate level over a multi-frame, and wherein

said error correction algorithm is selected during a frame subsequent to said

multi-frame.

33. The recordable medium of claim 30, wherein said error rate level determination step comprises correcting said plurality of bearer data packets and detecting a number of defective bearer data packets to obtain a current block error rate (BLER) level, and wherein said error correction algorithm determination step is based on said current BLER level.

34. The recordable medium of claim 30, wherein said error rate level determination comprises detecting a number of bit errors in said plurality of bearer data packets to obtain a current bit error rate (BER) level, and wherein said error rate level determination is based on said current BER level.

35. The recordable medium of claim 30, wherein said computer program is embedded in a ROM chip.

36. (Once amended) A communications terminal, comprising:

a receiver;

an error correction decoder electrically coupled to said receiver; and

a processor coupled to said error correction encoder, said processor comprising a computer program comprising steps for:

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determining an error rate level of a communication channel between a

plurality of communications terminals based on a plurality of

bearer data packets when received during a multi-frame; [and]

selecting an error correction algorithm from a plurality of error correction

algorithms taking into account said determined error rate level[.] ;

and

determining the dynamic quality of said communication channel.

37.   The communications terminal of claim 36, further comprising:

an error detection decoder electrically coupled to said error correction decoder

and said processor; and

wherein said error rate level determination step comprises directing said error

correction decoder to correct said plurality of bearer data packets and

directing said error detection decoder to detect a number of defective

bearer data packets, and wherein said error correction algorithm

determination step is based on said number of defective bearer data

packets.

38.   The communications terminal of claim 36, wherein said error rate level

determination comprises directing said error correction decoder to detect a

number of bit errors in said plurality of bearer data packets, and wherein said

error rate level determination is based on said number of bit errors.

39. (Once amended) The communications terminal of claim 36, wherein said computer program further comprises a step for directing said error correction decoder to correct a bearer data packet received during a time frame subsequent to said [multi-time frame] multi-frame using said selected error correction algorithm.

40. The communications terminal of claim 36, further comprising an antenna electrically coupled to said receiver.

41. The communications terminal of claim 36, further comprising:

a transmitter;

an error correction encoder electrically coupled to said transmitter and said

processor;

wherein said computer program further comprises a step directing said error

correction encoder to generate another bearer data packet according to

another selected error correction algorithm.

42. (Once amended) A communications system comprising:

a communications terminal comprising computer software comprising steps for:

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determining an error rate level of a communication channel between a plurality of

communications terminals based on a plurality of bearer data packets

when received during a multi-frame;

selecting an error correction algorithm from a plurality of error correction

algorithms taking into account said determined error rate level; and

correcting a bearer data packet when received during a frame subsequent to said

multi-frame using said selected error correction algorithm[.] ; and

determining the dynamic quality of said communication channel.

43.   The communications system of claim 42, wherein said error rate level

determination step comprises correcting said plurality of bearer data

packets and detecting a number of defective bearer data packets, and

wherein said error correction algorithm selection step comprises selecting

said error correction algorithm in response to said number of defective

bearer data packets.

44.   The communications system of claim 42, wherein said error rate level

determination step comprises detecting a number of bit errors in said

plurality of bearer data packets to obtain, and wherein said error correction

algorithm selection step comprises selecting said error correction

algorithm in response to said number of bit errors.

45.   The communications system of claim 42, wherein said communications

terminal is a remote station.

46.   The communications system of claim 42, wherein said communications

terminal is a base station.

47.   The communications system of claim 42, wherein said communications

terminal is a wired communications terminal.

48.   (New) The method of Claim 10, wherein said plurality of error correction

algorithms includes an algorithm which, when used, does not correct any

errors.

49.   (New) The method of Claim 10, wherein said plurality of error correction

algorithms includes an algorithm which, when used, does not correct any

errors, a low-level error correction algorithm and a high-level error

correction algorithm.

50. (New) The method of Claim 10, wherein said plurality of bearer data

packets are wirelessly transmitted between a central station and a remote

station.